

Panel with pre-placed tiles for laying floors

The present invention relates to building industry, and particularly the laying of floors by using panels consisting of two or more tiles which are glued beforehand to a Greek fret membrane to allow the floor  
5 to be laid quickly and easily.

Each panel essentially includes aligned, spaced tiles secured to a Greek fret membrane having such a shape as to conform with the shape of another membrane secured to the block and to fit with the latter in a  
10 removable manner.

Methods for laying floors in the name of the same Applicant are already known. They use a couple of membranes of plastic material, one of which is secured  
15 to the block and the second, to which the tiles are glued, is able to be fitted with the former in a removable manner.

Although such known laying methods allow floors to be removed quickly, it should be appreciated that the  
20 next new laying of a floor requires necessarily that a new removable membrane is applied onto the stationary membrane secured to the block whereupon tiles can be laid thereon. Of course, such operations are time consuming and expensive as well.

25 The main object of the present invention is to overcome such problems by providing a panel provided with pre-laid tiles and able to be fitted with the

membrane secured to the block so as to allow the floor to be laid easily, quickly and properly.

This has been accomplished according to the present finding by providing a panel including tiles and a portion of Greek fret membrane on which the tiles are properly positioned for the next laying, i.e. in coplanar, already spaced positions, and are glued to the Greek fret membrane which is able to be fitted in a removable manner with the membrane secured to the block.

These and other objects will be better understood from the following detailed description with reference to the accompanying drawings that show only by way of example a preferred embodiment in which the panel includes four tiles.

In the drawings:

Figure 1 is a three-dimensional top view showing a portion of floor together with a panel of tiles;

Figure 2 is a three-dimensional top view of a panel of tiles;

Figure 3 shows a side view of the finding.

In the embodiment disclosed, with particular reference to figures 1 and 2, the floor consists of a succession of panels 1 located beside one another, with each panel 1 being formed of four aligned, coplanar tiles M

and a removable membrane 2 to which tiles M are glued.  
According to the finding, such removable membrane 2 is  
able to be fitted with a stationary membrane 3 secured  
to the block and having a shape which conforms with  
the shape of the former membrane.

Dove-tail shaped notches and projections of removable  
membrane 2, to which tiles M are glued, are  
essentially able to fit projections and notches of  
stationary membrane 3 secured to block, respectively.  
Thus, Greek fret membranes merely fit mechanically  
just due to the resilient (preferably plastic)  
material which they consist of.

Each tile M of a panel 1 is secured to the  
corresponding removable membrane 2 by (silicone, hot-  
melt, etc.) glue which is spread on at least three  
points of the tile.

According to a peculiar feature of the invention, gaps  
are present between tiles M of panel 1 the width of  
which is equal to the distance of tiles M from  
removable membrane 2 to which the tiles are secured.

To complete the laying of the floor, after having laid  
all panels 1, tiles M are definitively secured to  
removable membrane 2 by a suitably fluid cement  
mixture of the known type which is cast on the laid  
panels 1 and enters the gaps between tiles M filling  
the room between removable membrane 2 and tiles M and  
gaps as well.

The final result is a perfectly laid floor (figure 3)  
with proper gaps between tiles that can be quickly  
dismantled.

In a variation of the finding particularly useful when the stationary membrane 3 on the block is missing, such membrane 3 is already fitted with the removable membrane 2 of panel 1 so that in order to lay the floor it is only sufficient that such panel 1 is directly glued to the block.

Advantageously, tiles M are laid beforehand in factory on panel 1 with the suitable gaps and with high precision and do not need any particular measure during their laying.

Another advantage is that, as already mentioned, the fastening of the removable membrane 2 to the stationary membrane 3 is exclusively of mechanical type so that a considerable reduction in the noise through the floor is achieved.

A further advantage is that it is not necessary to spread glue on tiles M of the removable membrane 2. In fact, as already mentioned, after having laid all panels 1 onto the block of the floor, the final anchoring of tiles M is carried out by using a very fluid cement mixture.

At last, still another advantage is given by that the cleaning of the floor is speeded up if tiles M are covered beforehand by a transparent film of plastic material. After the removal of the film, a perfectly cleaned floor with suitable gaps is provided in very short time.

It should be appreciated that in any case the gluing of panel 1 of the first embodiment (i.e. provided only with removable membrane 2) directly onto a block

without stationary membrane 3 provides the advantage of a quick, easy laying of the floor, even if the latter cannot be dismantled quickly.

5 In the latter case, the membrane to which tiles M are secured can have the shape of a Greek fret or be provided with engagement projections at the lower and upper surfaces.

10 The present invention has been described and illustrated according to a preferred embodiment thereof, however, it is self-evident that those skilled in the art can make technically equivalent modifications and/or replacements without departing from the scope of the present industrial invention.